

**PART I Authorization to Operate**

- A. The permittee is authorized to operate Class V Injection Well(s) at the facility described in the permit application and in the cover page of this permit, in accordance with the provisions set forth in this permit. In the case of this permit, the constructed wetlands and percolation pond system are defined as the injection well(s).
- B. The Permittee must have routine and daily control of the treatment system and injection well(s) in accordance with the terms of this permit.
- C. Only the treated effluent from the Foley Wastewater Treatment Plant shall be injected for the purpose of conducting a pilot study as described in the permit application.
- D. Authorization to operate pursuant to this permit is conditional on the permittee maintaining authorization to discharge pursuant to NPDES Permit Number AL0049042.
- E. This permit and the authorization to inject shall remain in effect until the expiration date as stated on the cover page of this permit and Part I D. If the permittee desires to continue injection past the expiration date of this permit, the permittee shall request a permit reissuance at least 180 days prior to expiration of this permit.

**PART II Construction Requirements****A. Injection Well Requirements**

1. The permittee shall inject only effluent that has been treated by passing through a wastewater treatment system.
2. Injected effluent shall meet the discharge limitations contained in NPDES Permit No. AL0049042.
3. The permittee shall provide a means of sampling the wastewater prior to introduction into the constructed wetlands and percolation pond system.
4. The constructed wetlands and percolation pond system shall be located in the area identified by the permit application.
5. The constructed wetlands and percolation pond system shall be operated and maintained so that injected effluent does not surface or overflow.

**B. Modifications**

Approval by ADEM shall be obtained prior to modification of any injection well or supporting surface. Modification shall mean any action that will change the configuration of the well beneath the surface, the methods of monitoring injection, or will result in injection of a fluid not specifically authorized by this permit.

### **PART III     Operating and Monitoring Requirements**

#### **A.     Injection Fluid**

1.     The permittee shall not inject any substance that is defined as hazardous or toxic by Federal or State laws or regulations or any substance not identified in the application for this permit. The proposed use of substances other than those identified in the permit application must be reviewed and approved by the ADEM prior to use.
2.     The daily volume of injected effluent shall not exceed the capacity of the constructed wetlands and percolation pond system.
3.     As described in the permit application, the injection rate of effluent into the constructed wetlands and percolation pond system shall not exceed the rate of withdrawal from the downgradient well field.
4.     The permittee shall monitor the effluent to be injected in accordance with NPDES Permit No. AL0049042.
5.     The injected effluent shall not exceed the limits established in NPDES Permit No. AL0049042.
6.     ADEM may change the sampling requirements if the sampling data indicates a need to do so.

#### **B.     Groundwater Monitoring Requirements**

1.     The permittee shall monitor groundwater in accordance with Appendix A. The permittee shall maintain monitoring wells sufficient to monitor groundwater quality immediately hydraulically downgradient of the constructed wetlands and percolation pond system. The permittee shall make any modifications to the monitoring plan, as deemed necessary by ADEM.
2.     Each monitoring well shall include the following:
  - a)     Each monitoring well shall be screened in the uppermost saturated zone. The well screen shall be of sufficient length to account for seasonal fluctuations in the water table and affects of the constructed wetlands and percolation pond system.
  - b)     The annulus around each well casing above the well screen shall be sealed with bentonite to prevent the passage of surface water into the injection zone.
  - c)     The surface installation shall include a concrete protective pad around the base of the well, a metal protective casing, and a locking cap.
3.     All surface water shall be routed away from the monitoring well's surface installation.
4.     The permittee shall not exceed the limits established in Appendix A of this permit.

C. Test Procedures

Test procedures for the analysis of pollutants shall conform to NPDES Permit No. AL0049042, 40 CFR Part 136 of the Federal Register and guidelines published pursuant to Section 304(h) of the Federal Water Pollution Control Act (FWPCA). If more than one method of analysis of a substance is approved for use, a method having a detection limit lower than the permit limit shall be used. If the detection limit of all methods is higher than the permit limit, the method having the lowest detection limit shall be used and a report of less than detection limit shall constitute compliance. However, should the Environmental Protection Agency (EPA) approve a method with a lower detection limit during the term of this permit the permittee shall use the newly approved method.

D. Certified Operation

The permittee shall not operate any wastewater treatment plant unless the competency of the operator to operate such plant has been duly certified by ADEM pursuant to the Alabama Water Pollution Control Act (AWPCA), and the operator meets the requirements specified in ADEM Administrative Code, Rule 335-10-1.

E. Operation

1. The injection well(s) defined as the constructed wetlands and percolation pond system shall function properly and wastewater shall not surface. Should the injection well(s) fail to function properly, the permittee shall take immediate corrective action, to include cessation of injection, as required by ADEM.
2. The permittee shall adopt the following best management practices:
  - a) Properly operate and maintain in good working order all treatment or control facilities or systems (and related appurtenances) installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the terms and conditions of this permit.
  - b) Comply with Federal, State, and local solid and liquid waste disposal regulations.
  - c) Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed in a manner that complies with all applicable ADEM rules and regulations.

**F. Monitoring Equipment and Instrumentation**

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices.

**PART IV Records, Reports, & Submittals**

**A. Records**

1. The permittee shall record the information listed below for all monitoring activities required by this permit:
  - a) The date, exact place, and time of sampling or sampling measurement(s);
  - b) The name of individual(s) who perform the sampling or measurement(s);
  - c) The date(s) analyses were performed;
  - d) The name of the individual(s) who performed the analyses;
  - e) The analytical or technical methods used;
  - f) The results of each analysis performed; and
  - g) The completed chain-of-custody forms for all samples collected.
2. The permittee shall retain all records concerning the data used to complete the permit application, the operation of the wells, and the nature and composition of pollutants injected; to include records of the calibration of instruments, meters and gauges, quality control records, and recordings from continuous monitoring instrumentation for the previous three years of operation.
3. When requested by ADEM, the permittee shall deliver copies of any of the records maintained in accordance with this permit.

**B. Reports**

1. Prior to injection, the permittee shall submit a notification of initial injection. This notification shall identify the start date of injection.
2. The reporting period for all monitoring performed pursuant to this permit under Part III A. 4. shall be monthly. The reporting period for all monitoring performed pursuant to this permit under Appendix A shall be quarterly. Upon the effective date of this permit, the permittee shall submit reports not later than 28 days after each reporting period, whether a discharge into the constructed wetlands and percolation pond system occurs or not. The monitoring reports shall include:
  - a) The date, exact place, and time of sampling or sampling measurement(s);
  - b) The results of each analysis and measurement performed.

3. The permittee shall report to ADEM any of the following:
  - a) Any planned action which will change the use of the injection well, will result in injection of a fluid different from that authorized by this permit, will result in injection of wastewater at a rate greater than the design flow rate, will change the method of operations of the injection well, or will change the method of the monitoring of well operations or injected fluids. No such changes shall be implemented unless or until a permit modification has been received.
  - b) Any planned transfer of ownership or responsibility of operation of all or part of the permitted facility.
  - c) Any relevant facts of which the permittee becomes aware which should have been submitted in a permit application and any corrections to data previously submitted in a permit application.
  - d) Within 30 days of the effective date of this permit, the name, address and operator number of the certified wastewater operator in responsible charge of the facility. Also, any change in the operator must be reported to ADEM.
4. Studies, engineering reports, plans and specifications, plugging and abandonment plans, logging reports, and other technical documents submitted to comply with this permit shall be prepared by or under the supervision of qualified persons defined by Rule 6-8-.13 of the Underground Injection Control (UIC) Regulations of the ADEM.

#### **PART V Plugging and Abandonment**

- A. The permittee shall perform any abandonment and closure actions that may be required by ADEM to remove a threat to groundwater quality or to the health of persons.

#### **PART VI Permit Modification, Revocation, Suspension, and Termination**

- A. ADEM may impose emergency additional conditions to this permit when necessary to protect waters of the state from pollution. These conditions may include suspension of the permit to inject. Any such condition shall remain in effect until the permit is modified, revoked, suspended or terminated in accordance with Rules 6-8-.12(a)3-5 and 6-8-.12(f) of the UIC Regulations of the ADEM.
- B. Non-emergency permit modification, revocation, suspension, and termination actions shall be accomplished in accordance with ADEM Administrative Rule 335-6-8.

#### **PART VII General Provisions**

- A. The permittee shall comply with all provisions of the UIC Regulations of the ADEM and shall comply with all provisions of this permit and shall reduce or halt injection if needed to maintain compliance with the permit and regulations.
- B. The permittee shall comply with all applicable Federal and State hazardous waste management regulations.

- C. The permittee shall allow members of the ADEM staff to:
1. access property and records of the permittee for purposes of inspection.
  2. collect samples of the injected fluids, process and wastewater streams associated with the permitted injection wells.
  3. collect samples from monitoring wells.
  4. obtain copies of records upon request.
- D. The permittee shall immediately take all reasonable steps to minimize or correct any adverse environmental impact resulting from the operation of the permitted injection wells.
- E. This permit does not convey any property rights of any sort, or any exclusive privilege.
- F. The filing of a request by the permittee for a permit modification, revocation, and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- G. Any noncompliance with this permit constitutes a violation of the Alabama Water Pollution Control Act (AWPCA) and/or the UIC regulations and is grounds for enforcement action such as permit termination, revocation, modification; or denial of a permit renewal application.
- H. Injection to waters of the state, which in this case is groundwater, in accordance with this permit shall not result in the exceedance of a Maximum Contaminant Level (MCL) in groundwater as established by the Environmental Protection Agency. Injection to groundwater, in accordance with this permit shall not result in a violation of a surface water quality standard.

**Appendix A**

The groundwater shall be monitored and limited by the permittee as specified below:

GROUNDWATER CHARACTERISTIC	UNITS	GROUNDWATER LIMITS	<u>MONITORING REQUIREMENTS</u>	
			FREQUENCY	SAMPLE TYPE
Total Nitrate	mg/l	7.5	Quarterly	Grab
pH	Standard	6.5-8.5	Quarterly	Grab

draft

## ADEM Permit Rationale

Date: February 19, 2009

Prepared by: Joe Kelly

Permit Applicant: The Utilities Board of the City of Foley  
Richard Peterson  
PO Drawer 2050  
Post Office Box 2050  
Foley, AL 36536

Facility Name: Foley WWTP

Location: SW1/4-27-7S-4E, Foley, Baldwin County, Alabama  
Approximate Latitude N 30 ° 24 ' 5.0 " / Longitude W -87 ° 39 ' 42.1 "

UIC Permit Number ALSI9902002

Draft Permit is: Initial Registration / New Use

Injection Description: Pilot Project for injection of treated effluent from existing WWTP

Discussion: Standard permit drafted.

1. No hazardous injection
2. Effluent sampling required prior to injection
3. Groundwater monitoring required
4. Discharge must be limited and sampled in accordance with current NPDES Permit
5. Results must be submitted in a timely manner
6. BMP's included in permit